

Title (en)

A METHOD FOR FORMING A SEMICONDUCTOR DEVICE WITH GATE SIDEWALL SPACERS OF SPECIFIC DIMENSIONS

Title (de)

VERFAHREN ZUR BILDUNG EINES HALBLEITERBAUELEMENTS MIT GATE-SEITENWAND-ABSTANDSELEMENTEN SPEZIFISCHER DIMENSIONEN

Title (fr)

FABRICATION D'UN DISPOSITIF SEMI-CONDUCTEUR A L'AIDE D'ESPACEURS DE DIMENSIONS SPECIFIQUES, POUR PAROIS LATERALES DE PORTES

Publication

**EP 1829092 A2 20070905 (EN)**

Application

**EP 05852586 A 20051129**

Priority

- US 2005043397 W 20051129
- US 258604 A 20041203

Abstract (en)

[origin: WO2006060528A2] A method for forming spacers (22) of specific dimensions on a polysilicon gate electrode (20) protects the sidewalls (24) of the polysilicon gate electrode (20) during selective epitaxial growth. The spacers (22), whether asymmetric or symmetric, are precisely defined by using the same specific exposure tool (30-42), such as a 193 nm wavelength step and scan exposure tool, and the same pattern reticle (32), in both the defining of the polysilicon gate electrode pattern and the pattern spacer, while employing tight alignment specifications.

IPC 8 full level

**H01L 21/28** (2006.01); **G03F 9/00** (2006.01); **H01L 21/027** (2006.01); **H01L 21/336** (2006.01)

CPC (source: EP KR US)

**H01L 21/28123** (2013.01 - EP KR US); **H01L 21/28132** (2013.01 - KR); **H01L 21/28247** (2013.01 - KR); **H01L 21/31144** (2013.01 - EP KR US);  
**H01L 21/32139** (2013.01 - EP KR US); **H01L 29/66628** (2013.01 - EP KR US); **H01L 29/66659** (2013.01 - EP KR US)

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

**WO 2006060528 A2 20060608; WO 2006060528 A3 20061026;** CN 100459052 C 20090204; CN 101073143 A 20071114;  
DE 602005011483 D1 20090115; EP 1829092 A2 20070905; EP 1829092 B1 20081203; JP 2008522441 A 20080626;  
KR 101142992 B1 20120515; KR 20070085551 A 20070827; TW 200623235 A 20060701; TW I397107 B 20130521;  
US 2006121711 A1 20060608; US 7279386 B2 20071009

DOCDB simple family (application)

**US 2005043397 W 20051129;** CN 200580039217 A 20051129; DE 602005011483 T 20051129; EP 05852586 A 20051129;  
JP 2007544490 A 20051129; KR 20077012157 A 20051129; TW 94141232 A 20051124; US 258604 A 20041203